SERVICE INFORMATION

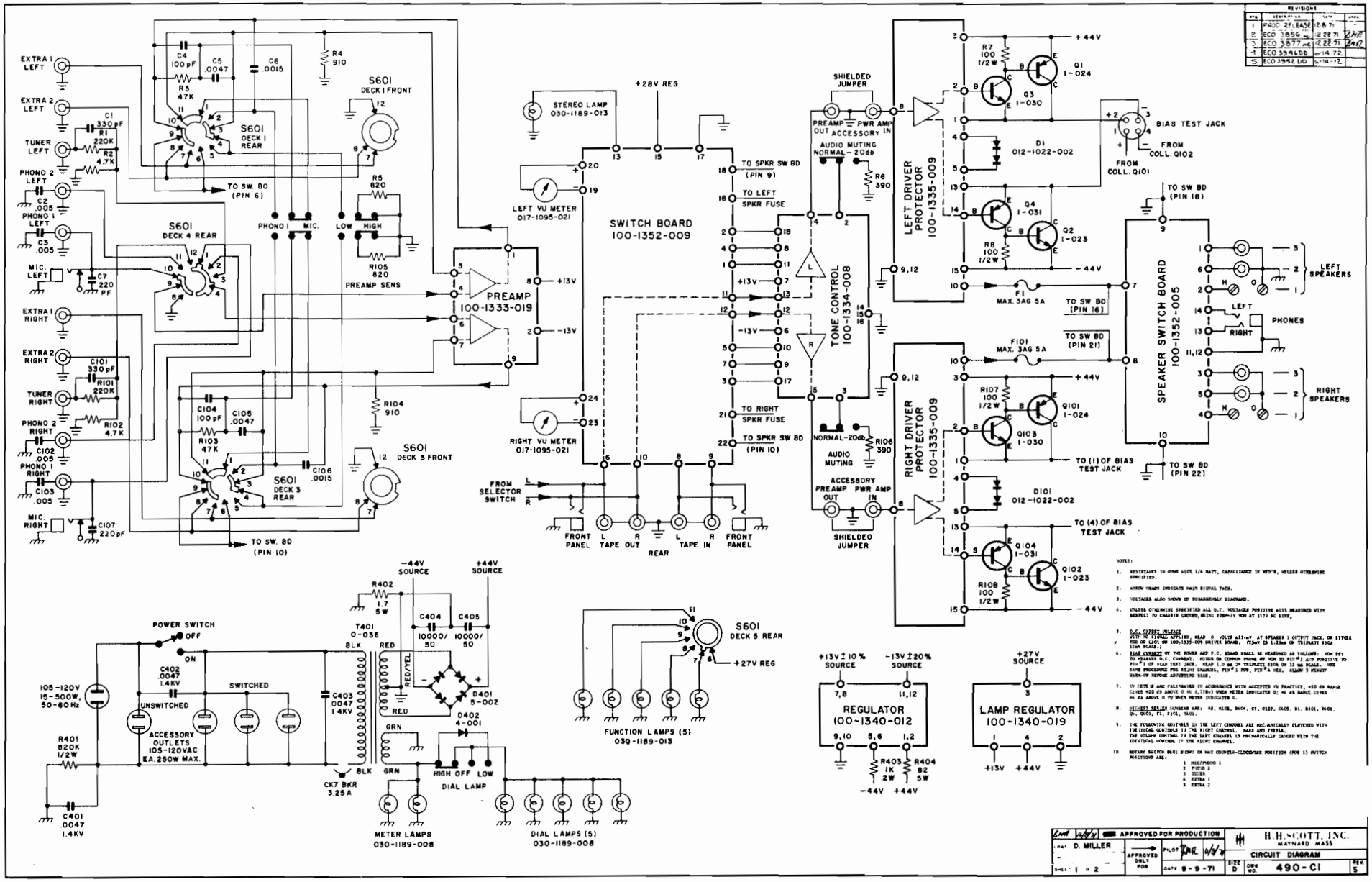
for

490

SCOTT®

where innovation is a tradition

H. H. Scott, Inc., 111 Powdermill Road, Maynard, Mass. 01754



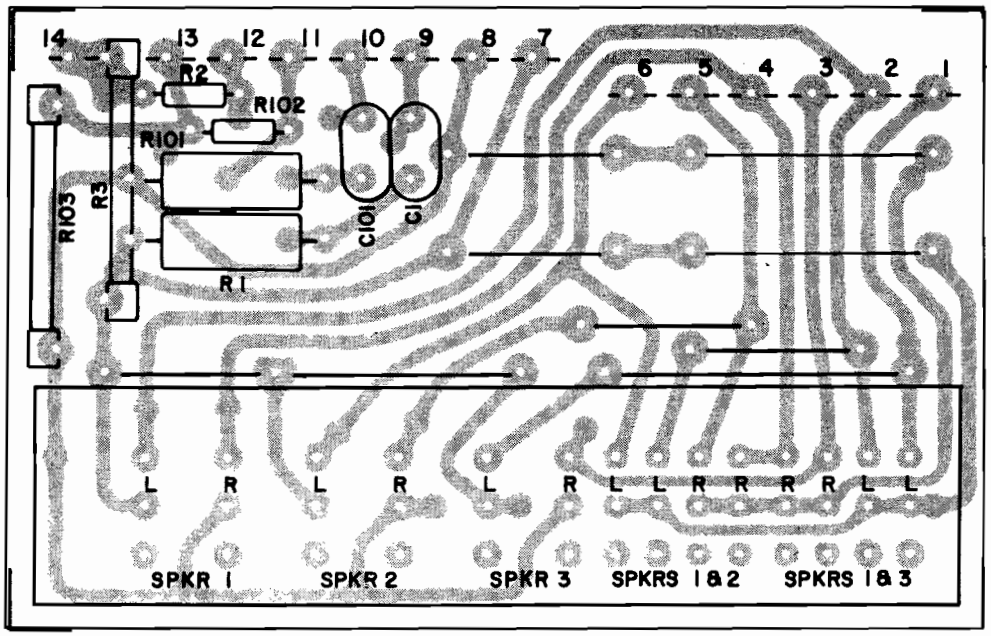
REVISIONS			
STA	DESCRIPTION	DATE	APPR
1	PROD RELEASE	2-8-71	–
2	ECO 3856	2-22-71	DHR
3	ECO 3877	2-22-71	DHR
4	ECO 3949 DD	4-14-72	
5	ECO 3992 DD	6-14-72	

NOTES:

1. RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MFD'S, UNLESS OTHERWISE SPECIFIED.
2. ARROW HEADS INDICATE MAIN SIGNAL PATH.
3. VOLTAGES ALSO SHOWN BY SCHEMATICALLY DIAGRAMS.
4. UNLESS OTHERWISE SPECIFIED ALL D.C. VOLTAGES POSITIVE ARE MEASURED WITH RESPECT TO CHASSIS GROUND, USING 100K Ω/V VOM AT 117V AC LINE.
5. D.C. OFFSET VOLTAGE WITH NO SIGNAL APPLIED, READ 0 VOLTS ±15mV AT SPEAKER 1 OUTPUT JACK, OR EITHER PIN OF J101 ON 100-1335-009 DRIVER BOARD. 75mV IS 1.15mm ON TRIPLETT 630A 1mA SCALE.)
6. BIAS CURRENT OF THE POWER AMP P.C. BOARD SHALL BE MEASURED AS VOLTAGE: VOM SET TO MEASURE D.C. CURRENT. MINUS ON COMMON PROBE OF VOM TO PIN #1 OF BIAS TEST JACK. PLUS #1 POS. TO PIN #2 OF BIAS TEST JACK. READ 1.0 mA ON TRIPLETT 630A ON 10 mA SCALE. USE SAME PROCEDURE FOR RIGHT CHANNEL, PIN #1 POS. PIN #4 NEG. ALLOW 5 MINUTE WARM-UP BEFORE ADJUSTING BIAS.
7. VU METER IS ARE CALIBRATED IN ACCORDANCE WITH ACCEPTED VU PRACTICE, +50 dB RANGE GIVES +50 dB ABOVE 0 VU (.775v) WHEN METER INDICATES 0; +4 dB RANGE GIVES +4 dB ABOVE 0 VU WHEN METER INDICATES 0.
8. HEIGHT SERIES NUMBERS ARE: R8, R108, R404, C7, C107, C605, D1, D101, D401, Q1, Q101, F1, F101, T401.
9. THE FOLLOWING CONTROLS IN THE LEFT CHANNEL ARE MECHANICALLY COUPLED WITH IDENTICAL CONTROLS IN THE RIGHT CHANNEL: BASS AND TREBLE. THE VOLUME CONTROL IN THE LEFT CHANNEL IS MECHANICALLY GANGED WITH THE IDENTICAL CONTROL IN THE RIGHT CHANNEL.
10. ROTARY SWITCH S601 SHOWN IN MAX COUNTER-CLOCKWISE POSITION (FOR 1) SWITCH POSITIONS ARE:
    1 MIC/PHONO 1
    2 PHONO 2
    3 TUNER
    4 EXTRA 1
    5 EXTRA 2

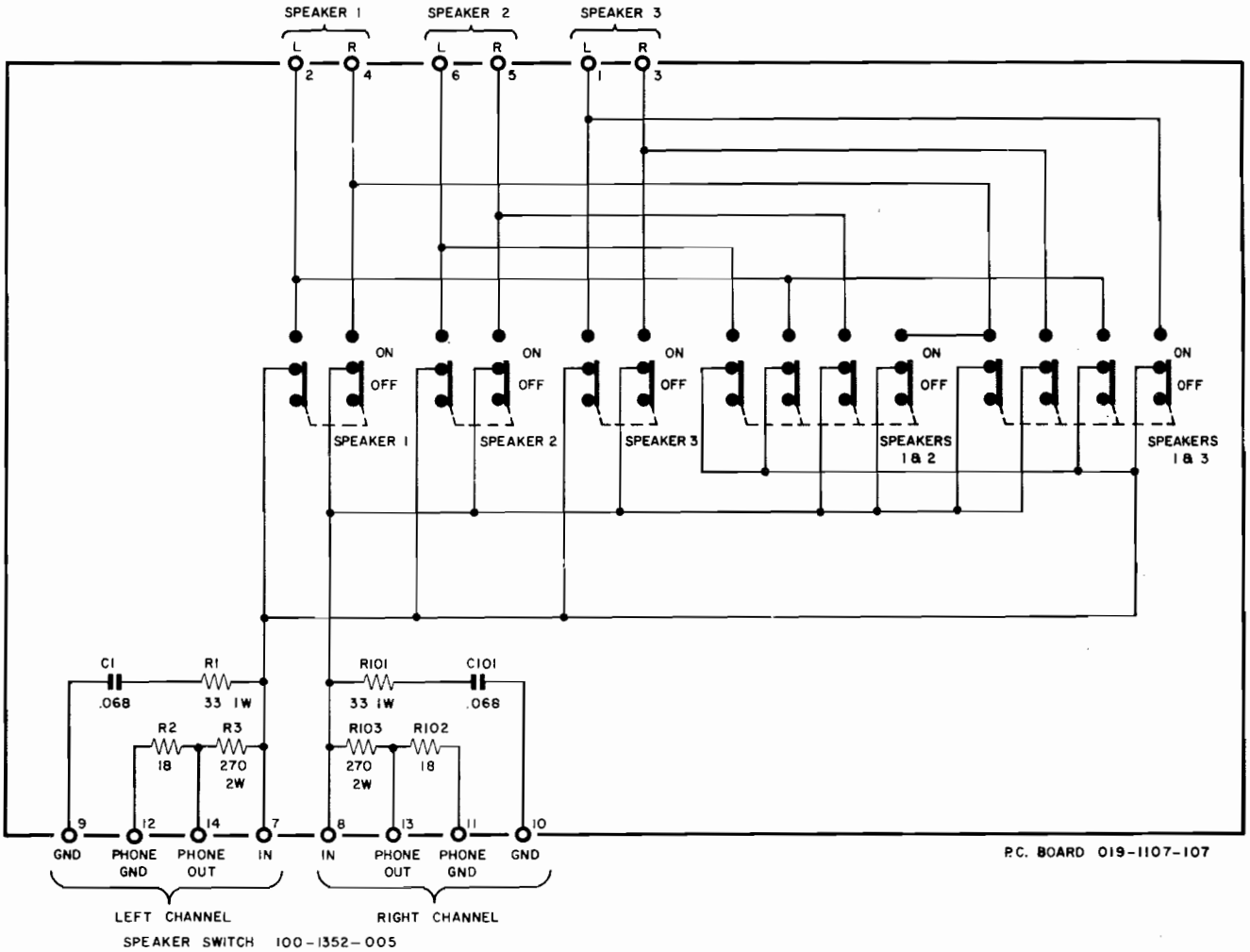
DRAWN D. MILLER	APPROVED FOR PRODUCTION	H.H. SCOTT, INC. MAYNARD MASS		
SHEET 1 OF 2	APPROVED ONLY FOR	PILOT	CIRCUIT DIAGRAM	
	DATE 9-9-71	SIZE D	DWG NO. 490-C1	REV. 5

CIRCUIT DIAGRAM 100-1352-005



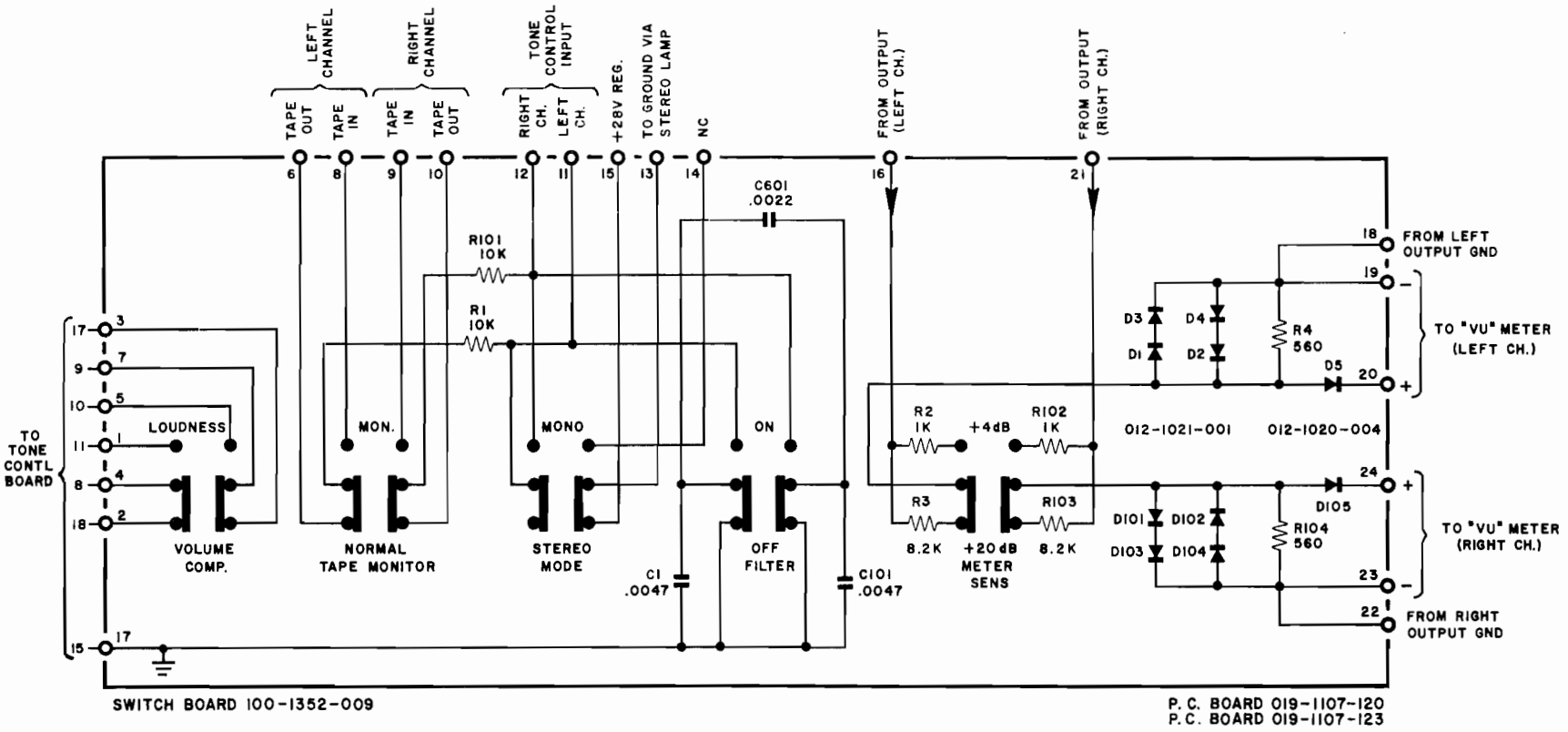
H.H.S. SPEAKER SWITCH BOARD

019-1107-109A REV 0



SPEAKER SWITCH 100-1352-005

REVISIONS			
SYM	DESCRIPTION	DATE	APPR



NOTES:

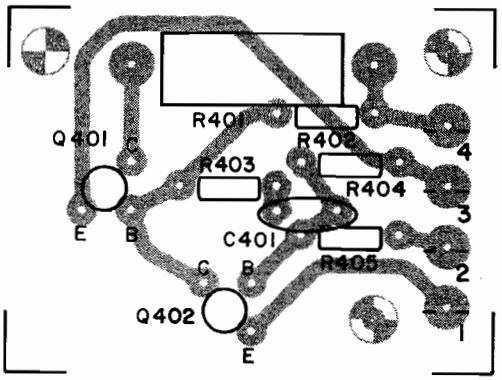
1. UNLESS OTHERWISE SPECIFIED
   1.1 ALL RESISTANCE IN OHMS ±10%, 1/4 WATT & CAPACITANCE IN μF'S
2. HIGHEST SERIES NUMBERS ARE
   R4, R104, D5, D105, C1, C101 & C601

USED ON	UNLESS OTHERWISE SPECIFIED		H.H.SCOTT, INC. MAYNARD MASS.
E229 490	ALL DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 1/2°	EMR 12/8/71 APPROVED FOR PRODUCTION DRAFT MR. CH. ENG. PROD. MATERIAL: —"— FINISH: —"—	APPROVED ONLY FOR: PILOT EMR 12/8/71; SAMPLE EMR; QUOTE EMR	SWITCH BOARD DWG NO. 100-1352-009 REV. 0 SCALE: N/A SHEET 1 OF 1 DATE 20AUG71

CHARRETTE 1863

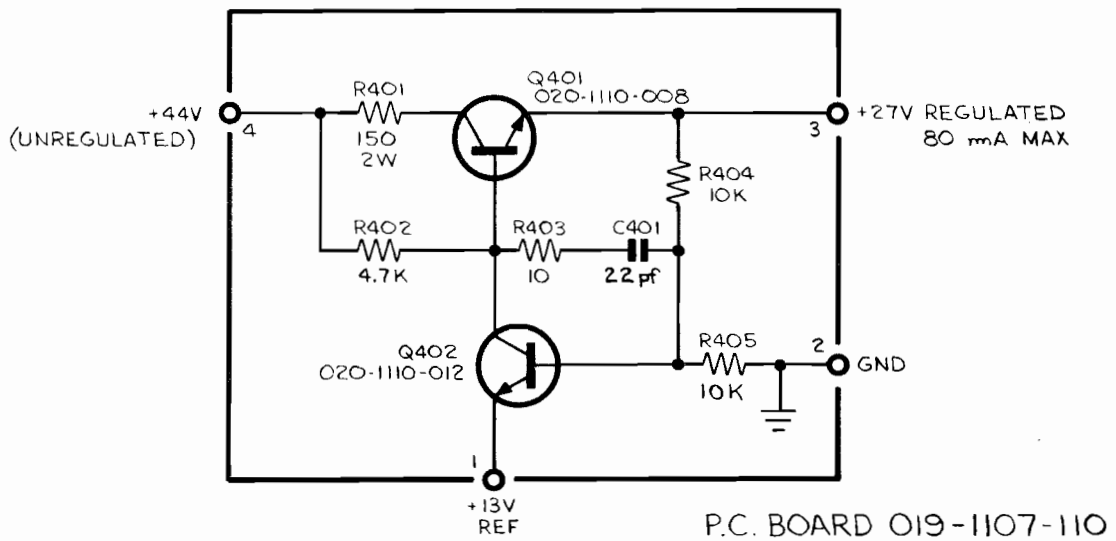
Q401; 020-1110-008
Q402; 020-1110-012

CIRCUIT DIAGRAM
100-1340-019



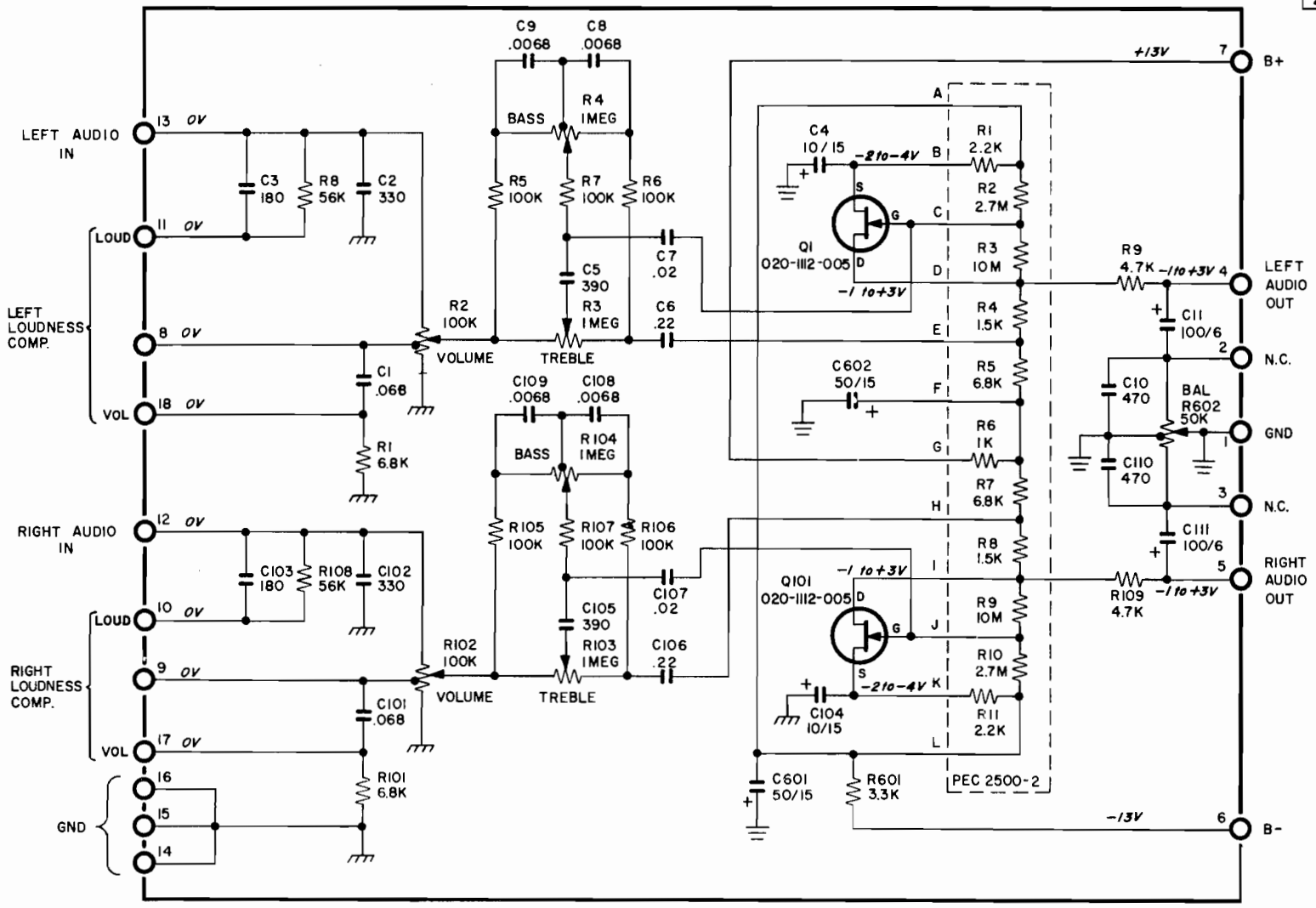
H.H.S
REGULATOR, LAMP SUPPLY

019-1107-110 REV. 0



P.C. BOARD 019-1107-110

REVISIONS			
SYM	DESCRIPTION	DATE	APPR
1	ECO 3668	5-17-71	
2	ECO	6-26-72	



TONE CONTROL AND LOUDNESS

019-1107-060

NOTES:

1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS ±10% 1/4 WATT, AND CAPACITANCE IN MFD'S.
2. THE VOLUME CONTROL IS MECHANICALLY GANGED. THE BASS AND TREBLE CONTROLS ARE MECHANICALLY CLUTCHED.
3. HIGHEST SERIES NO'S ARE: R9, R109, R602, C11, C111, C602, Q1, Q101.
4. WHEN TONE CONTROLS ARE IN FLAT POSITION, THE OVERALL VOLTAGE GAIN OF THIS CIRCUIT IS APPROXIMATELY UNITY. (0db)
5. 100-1334-007 USES LOUDNESS POT. 021-1125-063 & "B" TYPE CONN. 030-1181-023
   100-1334-008 USES LOUDNESS POT. 021-1125-038 & "A" TYPE CONN. 030-1181-020
   100-1334-015 USES LOUDNESS POT. 021-1125-095 & "B" TYPE CONN. 030-1181-023

TONE CONTROL

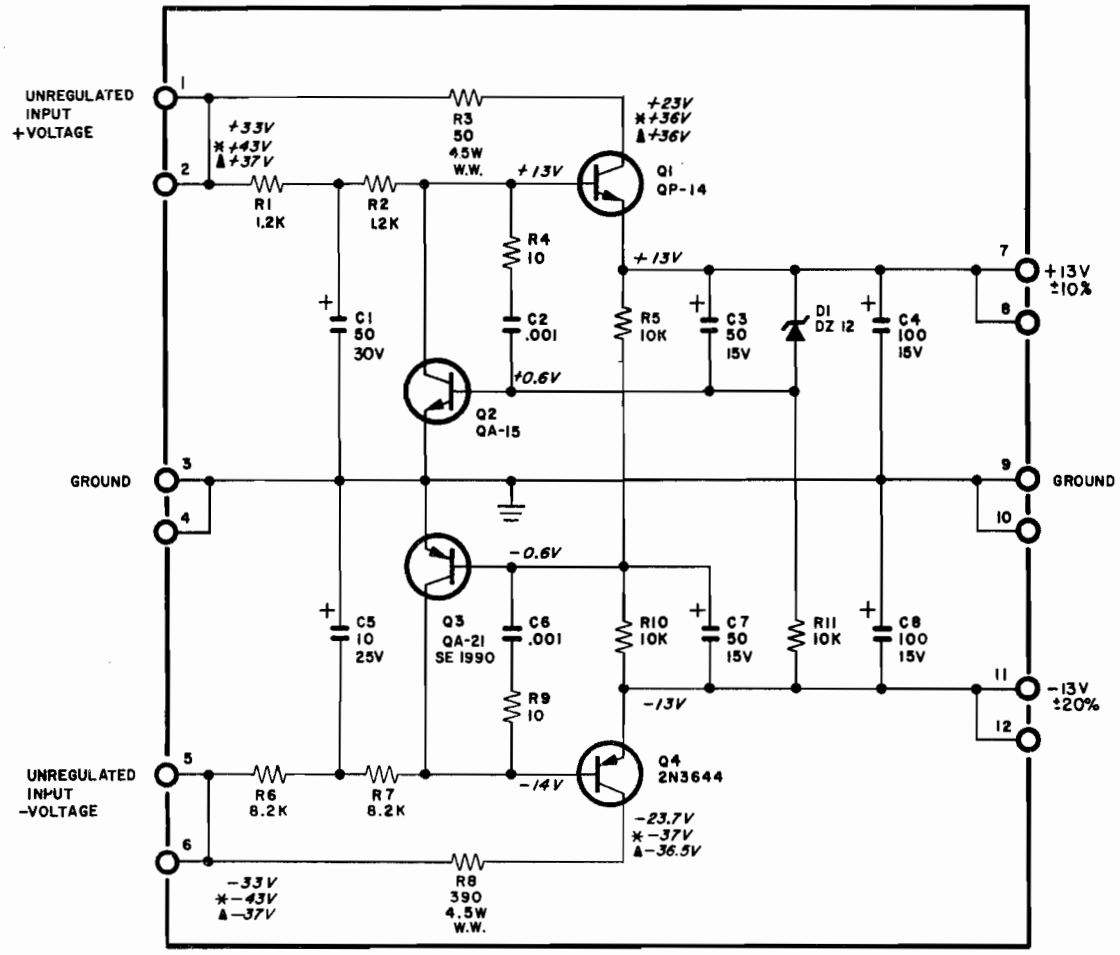
H.H.SCOTT, INC.
MAYNARD, MASS.

100-1334-007
100-1334-008
100-1334-015

SIZE C | DWG NO | REV 2

ENG BMB | SHEET 1 OF 1 | DATE 5-5-70

REVISIONS			
SYM	DESCRIPTION	DATE	APPR
1	ECO 3040	10-11-69	HP
2	ECO 3366	5-8-70	GMR
3	ECO 3699	6-14-71	GR



REGULATED POWER SUPPLY

019-1107-057 REV.0

NOTES:

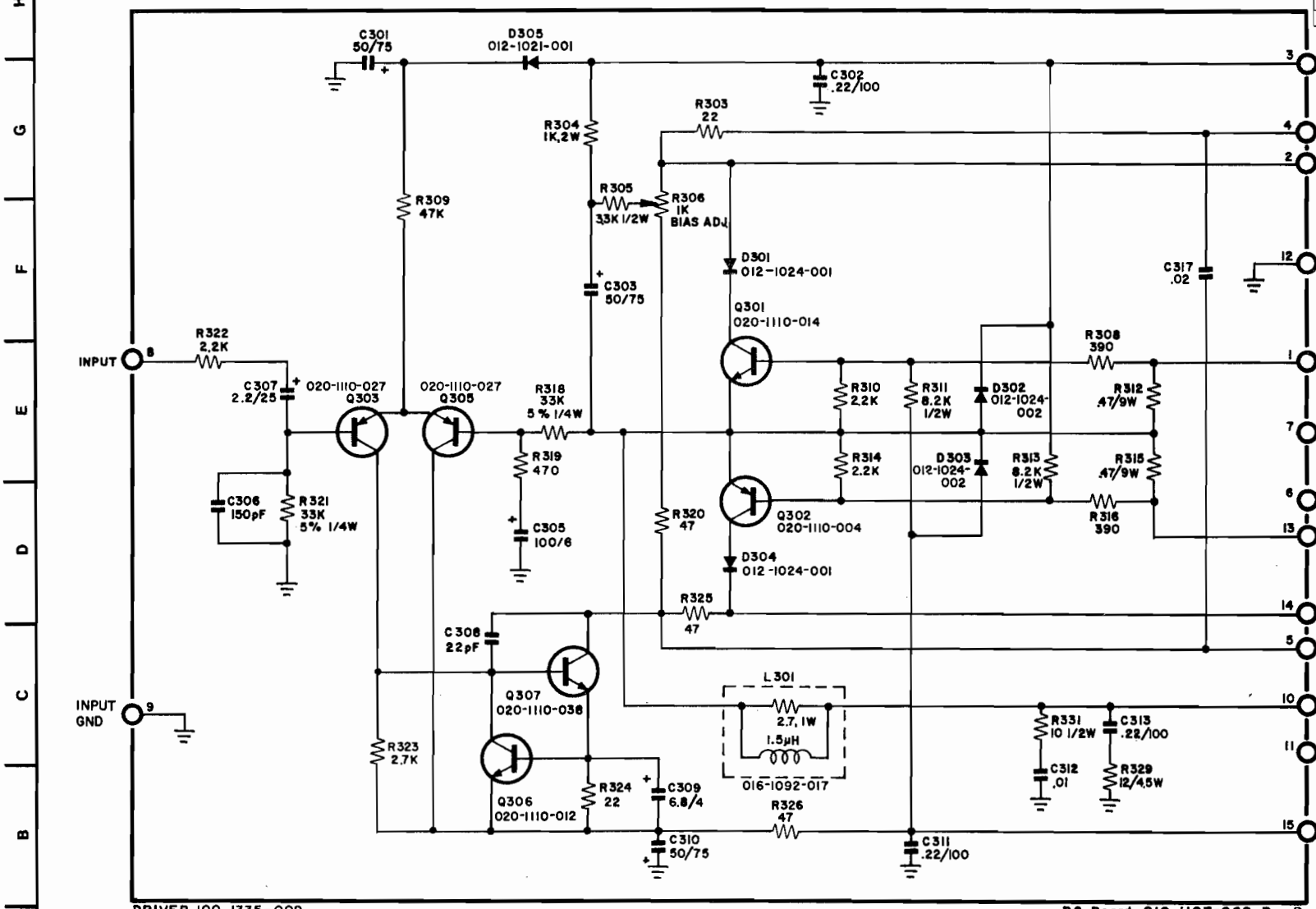
1. UNLESS OTHERWISE SPECIFIED: ALL RESISTANCE IN OHMS ±10%, CAPACITANCE IN MFD'S, RESISTORS 1/4 WATT, AND VOLTS ARE D.C. ±15% MEASURED WITH 20KΩ/VOLT V.O.M.
2. HIGHEST SERIES NUMBERS: R11, C8, D1, Q4
3. UNREGULATED INPUT VOLTAGE RANGE ±(25V TO 44V)
4. * INDICATES THE ONLY VOLTAGES WHICH CHANGE WITH 43V INPUT, (387).
5. ▲ INDICATES THE ONLY VOLTAGES WHICH CHANGE WITH 37V INPUT, (499).

H.H.SCOTT, INC.
MAYNARD, MASS.

REGULATED POWER SUPPLY

SIZE	DWG. NO.	REV.
C	100-1340-012	3

ENG. HP | SHEET 1 OF 1 | DATE 10-29-68



DRIVER 100-1335-009

P.C. Board 019-1107-069 Rev. B

REFER TO COMPONENT LABEL 019-1107-069/A

REVISIONS			
SYM	DESCRIPTION	DATE	APPR
A	ECO 3736	7-14-71	BMR
B	ECO 3784	8-30-71	BMR
1	ECO 3851	12-17-71	BMR
2	ECO 3875	12-20-71	BMR
3	ECO 3890	1-14-72	BMR
4	ECO 3952	6-12-72	

NOTES:

1. UNLESS OTHERWISE SPECIFIED RESISTANCE IN OHMS 10% 1/4WATT, AND CAPACITANCE IN MFD'S
2. HIGH SERIES NUMBER Q307, L301, R332, C317, D305
3. COMPONENT NUMBERS DELETED: R317, R327, R328, R332, C304, C314, C315, C316, R330, R302, R307, Q304.

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

TOLERANCES ON FRACTIONS ± 1/64, DECIMALS ± .005, ANGLES ± 1/2°

BMR 11-8-71 APPROVED FOR PRODUCTION

DRAFT. JA

CH. BFI

ENG.

PROD

MATERIAL:

FINISH:

APPROVED ONLY FOR → PILOT BMR 9/1/71; SAMPLE BMR 9/1/71; QUOTE BMR 9/1/71

H.H.SCOTT, INC. MAYNARD, MASS.

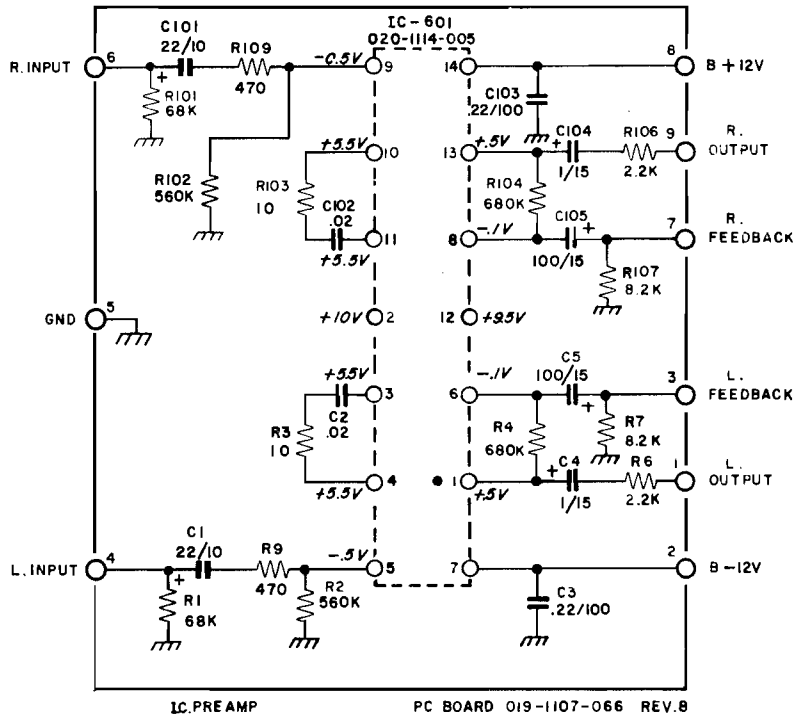
DRIVER- PROTECTOR

SIZE C | DWG. NO. 100-1335-009 | REV. 4

SCALE: — | SHEET 1 OF 1 | DATE 12-10-69

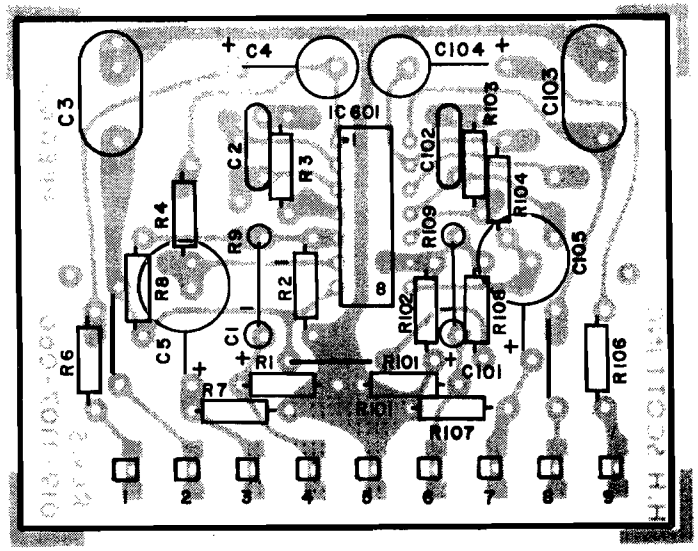
charrette 1498

REVISIONS			
SYM	DESCRIPTION	DATE	APPD
1	ECO 3177	1-7-70	SG
2	ECO 3688 IN	6-8-71	KMR
3	ECO 3759	8-17-71	KMR



IC.PREAMP PC BOARD 019-1107-066 REV.8

CIRCUIT DIAGRAM 100-1333-019



PRE AMP **019-1107-066/A REV. 1**

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL RESISTANCE IN OHMS, ±10%, 1/4 WATT, CAPACITANCE IN MICROFARADS.
2. HIGHEST SERIES NUMBERS ARE: R9, R109, C5, C105, IC-601.
3. CIRCLE MARK ON TOP OR INDENTATION ON LEG OF IC INDICATES PIN NO. 1.
4. VOLTAGES SHOWN DO NOT APPLY TO 2506-07.
5. R5, R105, R8 AND R108 ARE DELETED.
6. REFER TO COMPONENT LABEL 019-1107-066/A
7. UNLESS OTHERWISE SPECIFIED ALL VOLTAGES ARE DC±15% MEASURED WITH 20KΩ/V V.O.M..

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
TOLERANCES ON FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 1/2°

SG 8/11/70 APPROVED FOR PRODUCTION
DRAFT JA
CH B.F.T.
ENG
PROD
MATERIAL
FINISH
APPROVED ONLY FOR → PILOT, SAMPLE, QUOTE

H.H.SCOTT, INC.
MAYNARD, MASS.

IC PRE AMP

SIZE C | DWG NO 100 1333 019 | REV 3
SCALE — | SHEET 1 OF 1 | DATE 12/17/69